

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RUSSELL H. TAYLOR

Appeal No. 97-0974
Application No. 08/234,294¹

ON BRIEF

Before MEISTER, FRANKFORT and STAAB, ***Administrative Patent Judges***.

MEISTER, ***Administrative Patent Judge***.

DECISION ON APPEAL

¹ Application for patent filed April 28, 1994. According to appellant, this application is a division of Application 08/147,008 filed November 2, 1993, pending; which is a continuation of Application 07/714,816 filed June 13, 1991, now abandoned.

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Russell H. Taylor (the appellant) appeals from the final rejection of claims 50-52, 74 and 75, the only claims remaining in the application.

We AFFIRM.

The appellant's invention pertains to a system for assisting a surgeon during surgery. Independent claim 50 is further illustrative of the appealed subject matter and a copy thereof may be found in the appendix to the brief.

The reference relied on by the examiner is:

Raab	5,305,203	Apr.
19, 1994		
	(filed Oct. 2, 1990)	

Claims 50-52, 74 and 75 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellant regards as the invention.

Claims 50-52, 74 and 75 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Raab.

The rejections are explained on pages 3 and 4 of the answer. The arguments of the appellant and examiner in

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support of their respective positions may be found on pages 2-7 of the brief and pages 5-7 of the answer.

OPINION

We have carefully reviewed the appellant's invention as described in the specification, the appealed claims, the prior art applied by the examiner and the respective positions advanced by the appellant in the brief and by the examiner in the answer. This review leads us to conclude that the rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 112, second paragraph, is sustainable. We will not, however, sustain the rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 102(e).

We consider first the rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 112, second paragraph. Initially we note that when claims are drafted in a means-plus-function format in accordance with the sixth paragraph of § 112, a failure to describe adequately the necessary structure, material, or acts in the written description means that the drafter has failed to comply with the mandate of the second paragraph of § 112. *In re Dossel*, 115 F.3d 942, 946, 42 USPQ2d 1881, 1884 (Fed.

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Cir. 1997)). As the court in **Dossel** set forth, 115 F.3d at 946, 42 USPQ2d at 1885, in quoting with approval from **In re Donaldson**, 16 F.3d 1189, 1195, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994):

[a]lthough paragraph six statutorily provides that one may use means-plus-function language in a claim, one is still subject to the requirement that a claim "particularly point out and distinctly claim" the invention. Therefore, if one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.

Moreover, even when claims are not drafted in a means-plus-function format, the terms or limitations used therein must take on the meaning ascribed to them in the supporting disclosure and, if there is an unreasonable uncertainty as to this meaning, the claims are indefinite. **See In re Cohn**, 438 F.2d 989, 993, 169 USPQ 95, 98 (CCPA 1971) and **In re Moore**, 439 F.2d 1232, 1235 n.2, 169 USPQ 236, 238 n.2 (CCPA 1971).

Here, independent claims 50 and 74 both set forth "means for automatically selecting different ones of the sensing modes to be used by the means for sensing . . ." and

independent claim 75 sets forth "a selector for automatically selecting the sensing mode to be used by the sensor based upon information from the sensor" We find no adequate disclosure in the specification of what is meant by these limitations and, accordingly, are of the opinion that the claims on appeal fail to satisfy the requirements of the second paragraph of § 112.

The appellant contends that sensing modes including coarse, fine, yaw, pitch and roll positions are described on page 51 while "roll" and "zoom" modes are described on page 49. Thereafter, the brief asserts:

Page 51, lines 1-7 clearly describes a sensing system with different sensing modes and a computer adapted to select different sensing modes based upon the sensed position of a surgical instrument relative to a surgical plan, a target area, and/or another surgical instrument. For example, since the sensing system is connected to the monitor (247) and computer (243), as described on page 49, lines 12-28, the camera can be moved to keep an instrument in the center of a video image. In other words, the camera is automatically moved to give the surgeon a desired and constant view of the instrument. The different sensing modes can include an automatic "roll" or "zoom" of the camera (see page 49, lines 19-28), and customize image processing algorithms to enhance what the surgeon sees (see page 50, lines 11-14). [Pages 3 and 4.]

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We are unpersuaded by the appellant's contentions. The appellant is correct in noting that sensing modes including coarse, fine, yaw, pitch and roll positions are described on page 51, and roll and zoom modes are described on page 49. We must point out, however, that there appears to be no disclosure of any structure which performs the function of **automatically selecting different ones** of the sensing modes (independent claims 50 and 74) or which corresponds to a **selector** for **automatically selecting** the sensing mode to be used (independent claim 75). Accordingly, the meaning to be ascribed to the above-noted "means" and "selector" clauses is unclear when read in light of the specification.

It is true that the specification does state:

The computer can compute appropriate motor commands to move the camera to achieve a desired relationship with the surgeon's instrument. The system can include a method of aligning the manipulator center of motion to a body part and then grabbing the part with an adjustable clamp. In the simplest case, the computer could simply command appropriate 2_x and 2_y commands to place the image of a single beacon attached to an instrument at any desired place (e.g. the center) in the video image seen by the video camera. This could be done either in a continuously tracking mode or on command from the surgeon. In more complex cases, the computer would also use the distal 2_z and sliding motors to provide a "roll" and "zoom" capability. [Page 49, lines 13-28.]

It does not follow, however, that just because it is broadly stated (1) the computer can compute appropriate motor commands to move the camera and (2) the computer commands an image to be placed in the center of the video image seen by the camera, that the computer necessarily functions as a "means" for making an **automatic selection of different ones** of the sensing modes to be used by the means for sensing (independent claims 50 and 74) or a **selector** for **automatically selecting** the sensing mode to be used by the sensor (independent claim 75).

In view of the foregoing, we will sustain the rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 112, second paragraph.

Turning to the rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 102(e) as being anticipated by Raab, the independent claims (as we have noted above with respect to the § 112 rejection) each expressly requires either (1) a means for automatically selecting different ones of the sensing modes to be used by the sensor (claims 50 and 74) or (2) a selector for automatically selecting the sensing mode to be used by the sensor (claim 75). Raab, while disclosing the selection of different sensing modes, does not disclose a selector or means for automatically making this selection. More specifically, Raab states that:

The menu [or mode] selections are made by depressing the right pedal of the foot switch **21**, depressing the left pedal to confirm. Each time the right pedal is pressed, the pointer will move down one space. When the pointer is adjacent the required menu, then the left pedal is pressed. Selection of an item, for example, the Drill Menu, will result in the presentation of the Drill Menu. [Column 6, lines 28-34.]

Thus, it is readily apparent that Raab uses **foot-actuated** pedals or switches in order to select different modes.

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In response to the appellant's argument that Raab does not teach the automatic selection of different modes, the answer states that:

Appellant contends that the sensing means does not change modes automatically because the surgeon uses the foot pedal to select the modes. However, the reference clearly teaches that the surgeon selects the operation desired but the sensing mode is automatically changed, i.e., the sensing system, the part of the apparatus which senses the tool location [a]nd indicates the position on the screen, automatically reacts to the surgeon's selection by the shifting of a line-drawing mode for drilling, for example, to a line-drawing mode for sawing. The surgeon does not have to also switch the tool position sensing system when he switches operation procedures. [Page 7.]

The examiner, in our view, is attempting to expand the meaning of "automatically" beyond all reason. It does not follow that just because some automatic operation takes place **after a particular mode has been manually selected**, that there is an "automatic" **selection** of the sensing modes as claimed. The actual **selection** in Raab requires **manual** intervention on the part of the surgeon (i.e., the foot pedal must be operated when each selection of a mode is made). We can think of no circumstances under which one of ordinary skill in the art would consider the foot-operated device of Raab to operate

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automatically as claimed. Accordingly, we will not sustain the rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 102(e).

In summary:

The rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 112, second paragraph, is affirmed.

The rejection of claims 50-52, 74 and 75 under 35 U.S.C. § 102(e) is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

JAMES M. MEISTER)
Administrative Patent Judge)
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CHARLES E. FRANKFORT
Administrative Patent Judge

LAWRENCE J. STAAB
Administrative Patent Judge

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